PHILIP MORRIS
EUROPE MIDDLE EAST AFRICA

RESEARCH AND DEVELOPMENT

Monthly Progress Reports

Strictly Confidential

JANUARY 1980

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List of projects covered.

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12 Special Projects
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16 Cigarette and Smoke Analysis
17 Additives and Analytical Services
18 Materials Development
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Key to distribution:

A Complete Report
B All except Research Report
C All except Contract Research and those reports which might interfere with patent considerations
D 12, 17, 18, 19, 20, 21
E 13, 17, 18, 19, 20.

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PME RESEARCH LABORATORY, JANUARY 1980

PROJECT TITLE : PRODUCT RESEARCH

PERIOD COVERED : JANUARY 7th - 25th, 1980

WRITTEN BY : P. GHISTE

ADSORBENTS

At the request of Product Development the chemical and physical properties of "Meerschaum" were investigated*). "Meerschaum", a porous magnesium hydro silicate $3\ SiO_2 \cdot 2\ MgO \cdot 2\ H_2O$ (296.9) serves as filter aid for tobacco smoke (1).

Chemical and Physical Properties

Hygroscopic property (25°/40-60 % R.H.)	: 10.7 % (water uptake)
Max. weight loss (300°)	: 12.5 %
Solubility in water (100°)	: 0.7 %
Solubility in hydrochloric acid (1:1) under reflux (2 hours)	: 42 %
Decomposition in hydrochloric acid (1:1) under reflux (2 hours)	: 44 %

Physical parameters of modified "Meerschaum":

Exp.	Conditions of Modification	Surface Area (m^2/g)	Total Pore-volume (cm^3/g)	Mesoporous Volume (cm^3/g)	Microporous Volume (cm^3/g)
1	untreated (control)	320	0.54	0.48	0.06
2	water/100°/2h	300	0.45	0.39	0.06
3	600°/2h/N_2-flow	180	0.60	0.60	0.00
4	100°/4h/HCl(gas)-flow	130	0.41	0.41	0.00

*) A report covering all experimental details and results is currently being prepared.

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Selective Smoke Filtration by "Meerschaum"

American blend cigarettes with PSP filter containing "Meerschaum" modified according to experiments 2 to 4, as well as untreated "Meerschaum", will be prepared and submitted to QC for total smoke analyses.

P. Ghiste

REFERENCES

(1) German Patent No. 17 67 024

(2) P. Ghiste, Notebook No. 119, p. 50

(3) P. Ghiste, Notebook No. 119, pp. 44 - 48.

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PME RESEARCH LABORATORY, JANUARY 1980

PROJECT TITLE	:	PRODUCT RESEARCH
PERIOD COVERED	:	JANUARY 7th - 25th, 1980
WRITTEN BY	:	J. BOURQUIN

INSTRUMENT DEVELOPMENT

Summary of Activities

- CO Analyzer linearization circuit:
  Selection of the definitive components and starting to design the printed-circuit layout.

- NO Analyzer for QC:
  Troubleshooting; looking for ozone resistant O-rings.

- NO/NO_x Analyzer for sidestream smoke determinations:
  Evaluation of commercially available instruments.

- Data acquisition system for CO/NO Analzer (QC):
  Evaluation of several instruments. Orders have been placed for two dual-channel strip chart recorders and a HP-9825-S calculator.

- Battelle type smoke pumps:
  Modification and adaptation of the new DC motor have been started; design of power supplies with motor speed control ability.

- Introduction to microcomputer technique:
  The study of the TM 990/189 University Board was begun.

J. Bourquin

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PME RESEARCH LABORATORY, JANUARY 1980

PROJECT TITLE	:	ANALYTICAL INVESTIGATIONS
PERIOD COVERED	:	JANUARY 7th - 25th, 1980
WRITTEN BY	:	F. MOSER

Due to an internal reorganization of lab space the activity of the group was strongly reduced this month.

THIOL REACTIVITY OF CIGARETTE SMOKE (ISH)

The determination of ISH on a routine basis (TLA) (1) was started. Seven lots were analyzed in January.

SERVICES FOR OTHER GROUPS

Nicotine was determined in three NINO yeast samples (2) (3).

F. Moser

REFERENCES

(1) F. Moser, PME Research Lab. Monthly Progress Report, December 1979.

(2) Memo of P. Karbacher to F. Moser, dated January 8, 1980.

(3) Memo of F. Moser to P. Karbacher, dated January 15, 1980.

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Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

PROJECT TITLE : ANALYTICAL INVESTIGATIONS

PERIOD COVERED : JANUARY 7th - 25th, 1980

WRITTEN BY : E. LECOULTRE

GC/MS RESEARCH

Eastman's Triacetin

The impurities (or additives?) in ESTROBOND B (1) have been identified by GC/MS and structures assigned by fragmentation.

Peak with RT 13.01 min: Glycerol-2-propionate-1,3-diacetate, $C_{10}H_{16}O_6$ (232). MS: 159 (M - CH_3COOCH_2, 24), 57 ($CH_3CH_2CO^+$, 100), 43 (CH_3CO^+, 31).

Peak with RT 13.26 min: Glycerol-1-propionate-2,3-diacetate, $C_{10}H_{16}O_6$ (232). MS: 159 (M - CH_3COOCH_2, 20), 145 (M - $CH_3CH_2COOCH_2$, 14), 57 ($CH_3CH_2CO^+$, 78), 43 (CH_3CO^+, 100).

Concentration of the isomers in ESTROBOND B are 0.2 and 0.4 %, resp.

Peak with RT 4.45 min reported to be ethylacetate (2) was now identified as 1,3,5-trimethyl benzene (mol.wt.120). MS 121 ($M^+ + 1$, 5), 120 (M^+, 59), 105 (M - CH_3, 100), 91 ($C_7H_7^+$, 10). 1,3,5-trimethyl benzene is <u>not</u> an impurity in ESTROBOND B but of the solvent acetone used for the GS samples.

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The formation of both isomers in the esterification reaction of crude diacetin with propionic acid (H_3PO_4 as catalyst) could be confirmed by GC/MS.

The large scale synthesis of the isomer mixture is in progress.

E. Lecoultre

REFERENCES

(1) E. Lecoultre, PME Research Lab. Monthly Progress Report, December 1979, p. 12, Fig. 1.

(2) Y. Genoud, PME Research Lab. Monthly Progress Report, December 1979.

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Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

PME RESEARCH LABORATORY, JANUARY 1980

PROJECT TITLE : AGRICULTURAL CHEMICALS

PERIOD COVERED : JANUARY 1980

WRITTEN BY : M. SPECK

ROUTINE ANALYSES

Number of samples analyzed for pesticide residues:

Organochlorines	109
Organophosphorus	119
Dithiocarbamates	53
Maleic Hydrazide	8
Methamidophos	10

Number of samples analyzed for pesticide residues at INBIFO in 1979:

Month	Organo-chlorines	Organo-phosphorus	Dithio-carbamates	Maleic Hydrazide
January	76	76	18	16
February	94	94	82	41
March	63	63	10	8
April	64	64	56	39
May	43	43	7	7
June	78	78	53	1
July	66	66	31	1
August	85	85	55	42
September	81	81	51	4
October	44	44	15	4
November	40	40	24	10
December	71	71	28	3
SUM	805	805	430	176

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Not included are 31 samples which were analyzed for Methamidophos. The determination of Methamidophos was first performed at INBIFO in April 1979 and Methamidophos determinations were not included in monthly reports up to now.

NEW ANALYTICAL METHODS

Due to a serious injury to the person in charge work on method development has been temporarily interrupted.

M. Speck

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PME RESEARCH LABORATORY, JANUARY 1980

PROJECT TITLE : BIOTECHNOLOGY

PERIOD COVERED : JANUARY 3rd - 31st, 1980

WRITTEN BY : D. SCHULTHESS

During the period covered the biotechnology group moved from Cortaillod to the new laboratories in the former "Interfood" building.
All the laboratory equipment has been installed.

D. Schulthess

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PROJECT TITLE : Pilot Plant Operations

PERIOD COVERED : January 3rd - 25th, 1980

WRITTEN BY : C. Ruf

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1. Equipment

1.1. Evaporation

On the 17th of January, Mr. Hauri from Luwa AG came to Neuchâtel to discuss the possibility of the addition of a second evaporation stage after our KASAG concentrator.
He will send us an offer for a thin film evaporator.

1.2. Control

Five integrators have been installed in the control panel in order to totalize the most important flows of extract (for example before the fermenter or the evaporator).

2. Personnel

The seven operators who began work at the beginning of the month are now following the training programme.
This programme consists of a theoretical part (technology, instrumentation) and of a training part on the installation (comprehension of flow-sheets, practice in the pilot plant).
It will go on until the end of February.

3. Miscellaneous

The NINO project leader, Beth Krasna, will be leaving the department at the end of the month. The undersigned is now working with her in order to take over the responsibility of the project.

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The final reports on NINO trials N. 41 to 45 were written by B. Krasna this month.

PROCESS DEVELOPMENT

C. Ruf

January 28th, 1980
CLR/sde

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PROJECT TITLE : Unit Operations I

PERIOD COVERED : January 7th - 25th, 1980

WRITTEN BY : P. Karbacher

Nitrate Reduction of Strips

Permeability of Strips

The results of the permeability tests were received from Ex-Technik in Hamburg and De Smet in Antwerp. Also our trials on our make shift unit were finished.
All these results are within the same range. The table on the next page shows the results from Ex-Technik (Ex-Technik calls the permeability percolation) (Ref. 1).
These results show that a strip extraction is possible. The permeability (percolation) rate depends on the extraction temperature and the filling level of the strips in the extractor. By high extraction temperatures a good extract concentration is obtained but the permeability rate is low. The ideal ratio between the extraction temperature and the filling level of strips must still be found.

Rent of an Ex-Technik Small Scale Extractor

After obtaining such good permeability results we have decided to rent a small scale extractor from Ex-Technik.
Mr. Lüthi went to Hamburg to arrange all the details concerning this hire. The time table sets the start of the extraction trials with the rented unit between the middle and the end of February.

Visit to Ex-Technik in Hamburg

See monthly report Mr. N. Lüthi.

Ninomass

Contact has been taken with Aeromatic SA about renting a spray dryer. We need the dried Ninomass for trials at VLGZ (Ref. 2).

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Results of percolation * trials made by Ex-Technik (Ref. 1).

Trial number	1	2	3	4	
Quantity of strips	400 g	400 g	800 g	400 g	
Quantity of water	6.0 kg	6.0 kg	12.0 kg	5.0 kg	
Filling level of strips	450 mm	450 mm	890 mm	490 mm	
Strips density in the extractor	0.11	0.11	0.11	0.10	kg/dm^3
Filling level of strips after the extraction	390 mm	380 mm	690 mm	390 mm	
Extraction temperature	20-30°C	60°C	70°C	70°C	
Percolation rate after :					
10 min	245	110	70	80	l/dm^2h
20 min	185	100	45	90	l/dm^2h
30 min	140	60	35	80	l/dm^2h
40 min	130	55	25	60	l/dm^2h
50 min	105	40	20	60	l/dm^2h
60 min	105	40	20	60	l/dm^2h
Extract concentration after a percolation time of :					
10 min	-	1.91	1.88	1.90	weight %
20 min	-	2.03	2.07	2.28	weight %
30 min	-	2.12	2.12	2.41	weight %
40 min	-	2.17	2.17	2.50	weight %
50 min	-	-	2.21	2.54	weight %
60 min	1.93	2.2	2.24	2.56	weight %

* Ex-Technik calls the permeability percolation

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Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

Miscellaneous

Some help was given to Mr. Lüthi concerning dust sieving.

References

1) Report from Mr. Jess Ex-Technik Hamburg : Extraction of tobacco for nitrate reduction; January 9th, 1980.

2) Memo from P. Karbacher to B. Krasna; November 27th, 1979.

PROCESS DEVELOPMENT

P. Karbacher

January 29th, 1980
KPA/sde

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Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

PROJECT TITLE : Unit Operations II

PERIOD COVERED : January 7th - 25th, 1980

WRITTEN BY : N. Lüthi

Strips extraction

Visit to Extraktionstechnik in Hamburg (Ref. 1)

This visit was arranged to discuss all the problems connected with the rent of a small carrousel extractor (Ref. 2).
Our problems were discussed with Mr. Jess from Ex-Technik and were solved to our satisfaction. The examination of the extractor that followed showed a well constructed apparatus. It seems interesting to carry out a trial programme with this extractor in our pilot plant.
The theoretical capacity of this extractor ranges from ~ 1 kg to ~ 70 kg of strips per hour. The capacity depends on the extraction time and the filling level of the strips in the chambers.
The rotor volume (0.25 m^3) is divided into 12 V - shape chambers.
The external rotor diameter is 1 m.
The external measurements of the whole apparatus are about 2 m in diameter and about 2.6 m in height.

Dust sieving for Monique / RCB

Further trials were carried out to find an explanation for the clogging problems on the lower sieves (100 mesh steel web).
There was no improvement observed by changing the 100 mesh sieves from steel to nylon web.
The main problem seems to be the hygroscopic phenomena caused by the fineness of the dust particles (< 80 mesh).

Dust stock situation

The total dust stock in Onnens is 142 tons. For the first time we observed a decrease of the stock (10 tons less than the previous month).

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Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

Miscellaneous

Assistance was given to P. Karbacher (Permeability of strips).

References

1) Report on the visit to Extraktionstechnik in Hamburg of January 18th 1980; January 29th, 1980, N. Lüthi.

2) Monthly report, January 1980, Unit Operations I, P. Karbacher.

PROCESS DEVELOPMENT

N. Lüthi

January 29th, 1980
NIL/sde

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Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

PROJECT TITLE : Reconstituted Tobacco II

PERIOD COVERED : January 7th - 23rd, 1980

WRITTEN BY : A. Robbiani

MONIQUE / RCB

Slitter cutter (Ref. 1).

The 4 samples of the comparison test (COMAS cutter vs FTR prototype cutter) have been analyzed :

- by sieve test of the sheet strip size
- by sieve test, OV and filling power of the sheet cut rag.

The QC staff encountered some technical problems when cutting the sheet samples to cut rag. Not enough RCB sheet was left over to re-analyze the sample.

On January 18th the trial was repeated. 4 samples were again submitted for the missing analyses.

LUWA ventilation system (HVAC)

The ventilation system is still not working to our satisfaction despite the modifications carried out by LUWA.
On January 21st LUWA - and FTR engineers visited the installation.
They found out that the present flow rate of the air suction on the main dryer was lower than the flow rate at the time when LUWA did the measurements for the ventilation system.
The reason for decreasing the flow rate was to eliminate cracking of the sheet.
The calculation of the ventilation system was based on an air flow rate for drying, which has since been changed.
The LUWA ventilation system itself works according to the given specifications.
Thus it is foreseen to build a second air aspiration for the section under the Sandvik dryer. This will increase the flow rate of the exhaust air of the dryer.

Steel belt

A deformation of the steel belt was observed : a convexity of 13 mm was measured at the middle of the belt.
On January 11th a Sandvik expert visited Onnens and flattened the belt with a special tool.

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The last flattening operation occured in May 1979 (convexity 35 mm).

Roll coater

On January 8th the production had to be interrupted as the roll coater did not work anymore. The sprocket wheel drive of the steel casting roll was worn out and it was exchanged for a new one.

Dust stock situation, dust sieving

See monthly report January 1980, Unit Operations II, N. Lüthi.

3.4% Monique/RCB in MLF blend

The presently manufactured MLF blend contains 1.7% Monique/RCB. Due to the increasing Monique/RCB stock in Onnens it has been proposed to use 3.4% Monique/RCB in the blend.
About 12'000 kg MLF were produced with 3.4% sheet.
Cigarettes made out of this new blend were submitted to Panel A and B for taste evaluation.
Here is the result of the evaluation of Panel B (Ref. 2)
"The test cigarette is less agressive and more elegant than the existing standard blend".

QC ONNENS

Lab installation

On January 22nd the Portakabin (mobil home, ex research lab) was transported to Onnens. It will serve as a temporary office for Mr. Hiscox (ETNA) and the undersigned.
A new QC lab is going to be built in Onnens. In this lab analyses for the 3 processes (ETNA, ESTHER and MONIQUE) will be carried out.
To set up this lab studies are being made jointly with Mr. Lopes (QC PME), the architect and the manufacturer of the lab furniture.

References

1) Notebook No.1, page 47, A. Robbiani
2) Panel B, Test de dégustation du 17.1.1980, P. Karle.

PROCESS DEVELOPMENT

January 29th, 1980
ARO/sde

A. Robbiani

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Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

PROJECT TITLE	:	A P L
PROJECT LEADER	:	R. TOIMIL
PERIOD COVERED	:	January 7th - January 25th 1980
WRITTEN BY	:	R. TOIMIL

During January 1980, the card-indices of APL programs has been increased. These programs enables us to realize graphical and statistic analyses, either on values taken in a card-indice, or on values introduced manually in the terminal.

THE FOLLOWING PROGRAMS HAVE BEEN DEVELOPED :

1) HISTOGRAM
2) HISTO, PLOT (Histogram with graph of frequency)
3) REG, PLOT
4) "SAISIE"
5) CORR, MUL
6) TEST, F
7) "ENLEVE" (Take away)

1) HISTOGRAM

This program enables us to calculate the standard deviation (S), the average, the minimum and the maximum of a sample, the number and the center of classes, the number and the percent per classes (See enclosure 1).

2) HISTO, PLOT

This program enables us to illustrate the histogram. In addition, it draws the average, the graph between the center of each class and the limits at 2 S of each side of the average (95 % of the values) (See enclosure 2).

3) REG, PLOT

This program enables us to illustrate the relation between two given parameters. It calculates the function y=f(x) asked by the operator on the basis of the programs of regressions (See monthly report of October 1979). On the basis of this function, it calculates the coefficient of correlation (R^2) and the associated standard deviation (S. Y, X) (See enclosure 3).

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4) "SAISIE"

Under the "REG, PLOT" program, it enables us to write down a title on the graph.

5) CORR, MUL

Under the "REG, PLOT" and "REGRESSION" programs, it enables us to calculate the multiple regression of a sample composed of several variables (i.e. polynomial correlation of nth degree).

6) TEST, F

This program enables us to calculate the F test of a correlation.

7) "ENLEVE" (Take away)

It enables us to take away from a matrix of values all these which are not necessary for analysis.

EXPLOITATION OF THE APL CARD-INDICE

Some work on the TLA card-indice has been realized for the Leaf Department PME in collaboration with Miss L. Joseph.
The results of this work will be presented on the 29th of February 1980.

R. Toïmil

28/01/1980/RAT/cap

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A

3.050	2.980	1.590	1.990	3.020	3.020	3.110	2.350	1.640	1.340	1.670	1.850	1.970	2.440	3.770	3.770	4.430	3.770	3.830	4.260
	3.830	3.840	4.260	4.260	3.720	3.810	3.750	4.540	3.280	3.590	1.870	3.170	3.170	3.290	3.070	3.600	1.460	4.030	2.450
	2.630	1.510	1.770	2.720	2.720	2.720	3.180	2.980	3.260	3.220	3.440	2.590	3.520	2.890	3.290	3.480	2.590	3.500	3.440
	3.630	2.760	2.700	3.250	3.630	3.750	3.590	3.560	3.300	3.790	1.810	1.510	3.130	3.120	3.350	1.800	2.580	2.330	2.270
	2.040	2.420	2.850	2.850	2.390	2.140	2.700	2.910	2.830	2.980	2.520	2.810	3.160	3.230	3.120	2.150	2.920	2.210	2.680
	2.730	2.470	2.070	3.010	3.100	3.340	3.360	3.500	2.940	3.620	2.150	2.050	2.740	2.860	2.680	2.990	2.500	2.120	2.720
	2.830	2.900	2.950	2.550	3.060	3.250	3.500	3.620	3.470	3.510	3.900	3.900	3.900	4.040	4.000	2.910	4.010	4.100	4.160
	4.410	4.810	4.360	4.300	4.440														

HISTOGRAMME A
DONNEZ LA LARGEUR DES CLASSES
.5

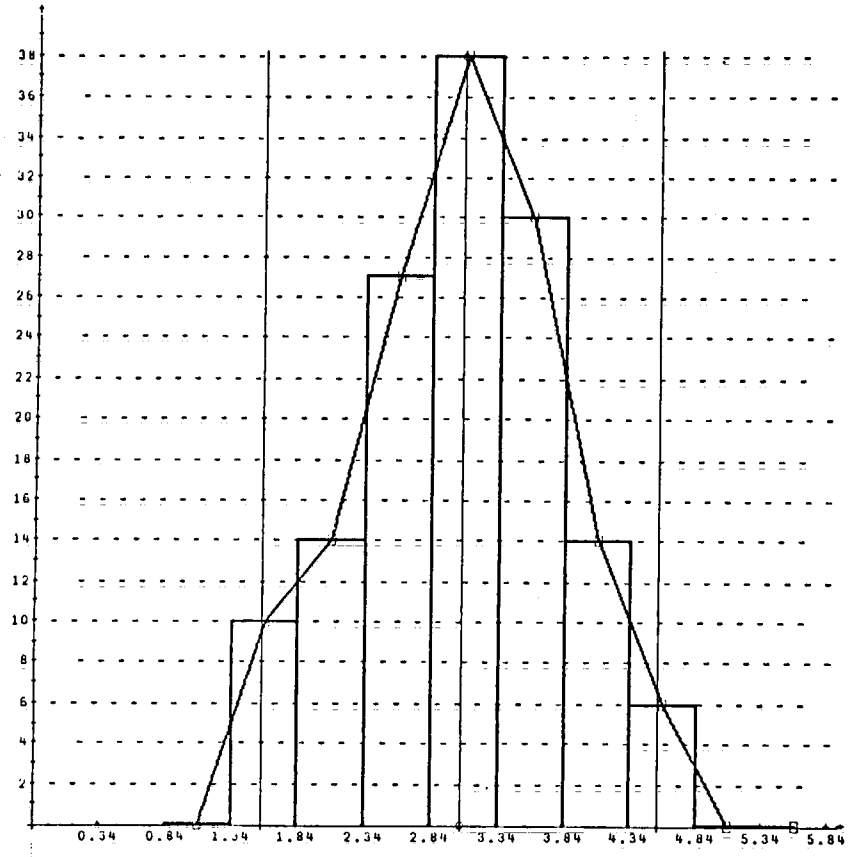
NBR. DE CLASSES	:7
LARGEUR DES CLASSES	:0.5
MIN. DE L'ECHANTILLON	:1,34
MAX. DE L'ECHANTILLON	:4.81
NBR. D'OBSERVATIONS	:139
ETENDUE DE L'ECHANTILLON	:3.47
MOYENNE DE L'ECHANTILLON	:3.06
ECART-TYPE (S)	:0.748

CENTRE DES CLASSES	: 1.090	1.590	2.090	2.590	3.090	3.590	4.090	4.590	5.090	5.590
NBR. PAR CLASSE	: .000	10.000	14.000	27.000	38.000	30.000	14.000	6.000	.000	.000
/ PAR CLASSE*	: .000	7.194	10.072	19.424	27.338	21.583	10.072	4.317	.000	.000

A REPRESENTE LE T.A. EN MILLIGRAMMES PAR CIGARETTE POUR LES LOTS FLUE-CURED BASIC

0001437743

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000



NBR. DE CLASSES	:7
LARGEUR DES CLASSES	:0.5
MIN. DE L'ECHANTILLON	:1.34
MAX. DE L'ECHANTILLON	:4.81
NBR. D'OBSERVATIONS	:139
ETENDUE DE L'ECHANTILLON	:3.47
MOYENNE DE L'ECHANTILLON	:3.06
ECART-TYPE (S)	:0.748

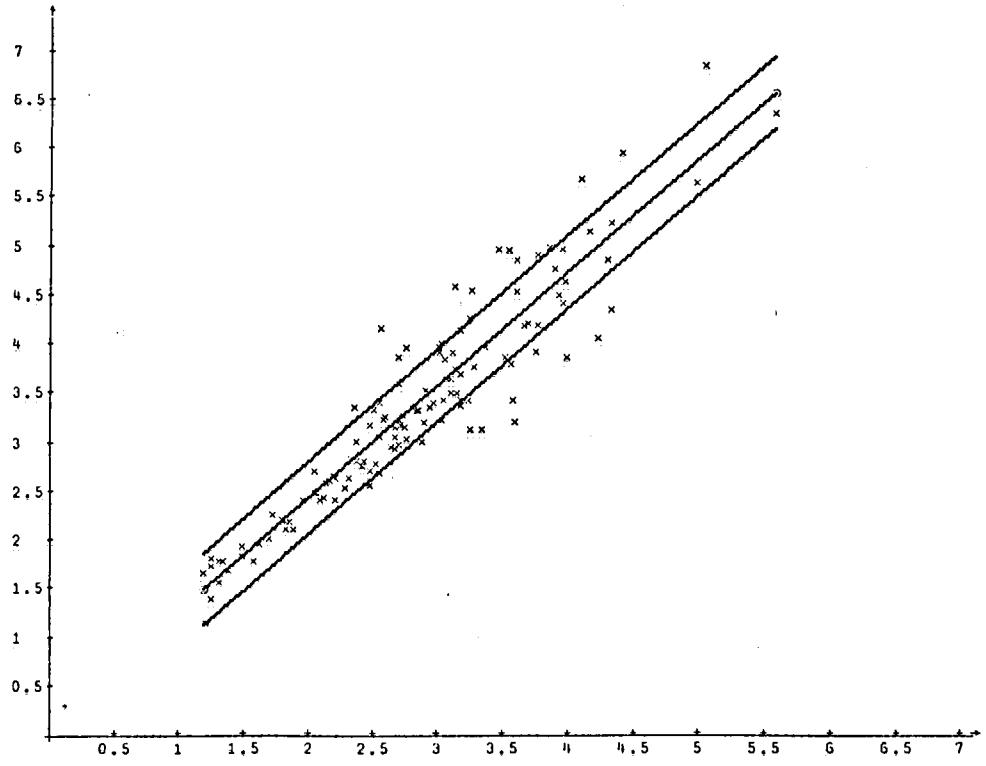
CENTRE DES CLAS	: 1.090	1.590	2.090	2.590	3.090	3.590	[illegible]0	4.590	5.090	5.590
NBR. PAR CLASSE	: .000	10.000	14.000	27.000	38.000	30.000	14.000	6.000	.000	.000
%. PAR CLASSE	: .000	7.194	10.072	19.424	27.338	21.583	10.072	4.317	.000	.000

00014337744

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

Annexe 3

RELATION ENTRE LES CRITERES 85 ET 106
X REPRESENTE : SN POUR DES LOTS FLUE-CURED BASIC
Y REPRESENTE : SN POUR DES LOTS FLUE-CURED BASIC
L'UNITE DE X EST: MILLIGRAMME PAR CIGARETTE
L'UNITE DE Y EST: MILLIGRAMME PAR GRAMME DE TABAC BRULE



YF(X) Y:1.15*X+0.126
R CARRE R:0.878
ECART-TYPE LIE SYX:0.373
NB.D'OBSERVATIONS NB:139

0001437745

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

PROJECT TITLE : CIGARETTE DEVELOPMENT

PROJECT LEADER : R. HIRSBRUNNER

PERIOD COVERED : December 22nd 1979 - January 22nd 1980

WRITTEN BY : R. HIRSBRUNNER

Project number	Name	Situation or objectives

340 GAMMA — Product test

A consumer test will be prepared in Munich (End of January) with the prototypes : (1)

69 B, 70 B = 4 mg tar
71 , 73 = 6 mg tar

The four prototypes will be tested with the MLL-90 in Germany.
Foreseen delivery date to the institute : Third week of February.

334 ATLANTIC PE

MARLBORO

- Development will continue with two new leaf formulae for the steps 82.21 and 82.22.
- Version 80.21 (2 % ET) gives no significant difference against the current product (taste and analytical values) in an external MARLBORO consumer test (Panel D) (2).

AMBASSADOR

A blend repetition of the ATLANTIC 83.2 trial batch 334 (18 % ETNA-2) has been carried out again (trial batch 824).
New prototypes will be made as soon as possible with the cigarette paper which enhances the flue-cured taste.

MERIT

According to prototype No 6 HILTON Sweden, four new versions have been prepared with 15 % of ETNA-2 (instead of ETNA-1), two cigarette papers Mauduit 110-6 and Mauduit 753 bis and flavoured with two levels of after-cut (60 and 100 %).
The progress report has been established (3).
We are awaiting Panel A's appraisal.

1000143746

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

BRUNETTE DOUBLE 83.31

As soon as the situation concerning the partial replacement of MDX tobacco by CCF grades will be clarified, we will start ATLANTIC development.

HARVARD Product test

The product test results seem to be unsuccessful for prototype 95 (15 % of ET) against the current product and SELECT.
The cigarette re-engineering will be effected according to COLORADO project (See Mr. P. Nagel's report).

COUNTRY PE

No work has been undertaken this month.

233 COUNTRY DB Product test

A consumer test has been prepared in Berling including : (4)
Current MARLBORO
91 S (Strips)
91 LL (Loose Leaf)
The consumer test will be effected with the original MLK pack.
In order to secure smoke yield, the tested cigarettes will be smoked by the three German smoking labs.

143 BUBBLE DB

No work has been undertaken this month.
The BUBBLE PE (version 87 B) is currently in a regional test in Germany.

335 LOLITA DB K = 12 / N = 0.9 and
K = 10 / N = 0.8 (New objectives)

- In order to improve the taste, a new trial program will be established during the next Committee B (January 22nd).
- The original porous LARK-filter ex USA has been ordered from Munich in order to continue the cigarette development.
- A 7.90 x 100 PSP (25 mm) trial filter will be run in FTR for the 10 mg K prototype.

328 VICKY DB K = 12 / N = 0.8
K = 10 / N = 0.8 (New objectives)

The German Marketing received the approval for the VICKY version V 13 (MARLBORO basis) (5).
The objectives change from K = 12 to K = 10 mg/cig. without cigarette development work request.

0001437427

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

317 PROJECT "M" Smoke yield reduction K = 10 / N = 0.7

- The next production will be run with the modified labels.
- Trials are being run in Munich in order to bring down the smoke yield.

350 PETER PAN PE

L & M

The first production of L & M for Italy has been run in Munich at the end of December 1979.

LARK

The first production of LARK has been run in Munich during January 1980.

Note : Samples of both products will be presented to all Areas by the new product coordinator (Mr. W. Tschudin).

301 HILTON 100'S PE Development phase

A well acceptable prototype is ready (Version No 5) (6).
Blend : MER-Italy / Paper : Mauduit 110-6 / Tar : 9.5 / SN : 0.68 /
Dilution : 30 % / Launch : April / Sourcing : Munich.

192 BELTOISE FR 6.7 / 0.45

- The samples of the trials made in Weltab were analysed (TPM program) and given to Panel A. Choice : Version 17, French tar : 6.7.
  The filter bears the FU-POV-40 K made by Intertaba.
  The progress report will be established as soon as possible.
- First production : Beginning of February 1980 (7).

315 NEWCASTLE WN Improvement phase

The 5 tons of flue-cured part from FTR have been sent in order to reinforced the blend.
1'000 kg of flavours are ready to be dispatched from FTR.

314 YORK WN 20 mg DPM

No work has been undertaken.
This project will be discussed during a next meeting.

2000143748

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

250 COCKPIT BLUE CO-reduction

We are awaiting cigarettes from Munich for lab and taste evaluation. The trials with filter length increase to 21 mm will be made as soon as the maker will have been modified in Munich factory.

300 MARLBORO MENTHOL DB N-reduction

In order to lower the N value, a trial will be carried out at the next production with a filter having a higher RTD.
Taste and smoke analyses will be done.

336 MARY DB Air-cured cigarette (Diluted and undiluted)

The necessary material has been sent to Munich in order to repeat the trial program in local condition.
The Maryland wood case will be sent by truck on January 28th 1980.

HILTON MENTHOL

Trials with zone perforated tipping paper will be repeated at the next production (End of January 1980).

R. Hirsbrunner

REFERENCES

(1) Trial program GAMMA DB from R. Hirsbrunner to G. Völkl, December 13th 1979.
(2) ATLANTIC - MLF step 80.21 Panels and smoking results report from R. Hirsbrunner to J. Guyot, January 9th 1980.
(3) Progress report ATLANTIC-HILTON from R. Hirsbrunner to J. Guyot, January 9th.
(4) COUNTRY-DB, analytical results by telex from G. Völkl, January 7th.
(5) Note project VICKY from M.W. Bauer to G. Völkl, January 7th.
(6) Final report HILTON 100's from R. Hirsbrunner to W. Tschudin, December 17th.
(7) Final report BELTOISE from R. Merckell, December 19th.

29/01/1980/RAH/cap

00001437749

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

PROJECT TITLE : CIGARETTE DEVELOPMENT

PROJECT LEADER : P. NAGEL

PERIOD COVERED : December 19th 1979 - January 22nd 1980

WRITTEN BY : P. NAGEL

Project number	Name	Situation or objectives
278	EVEREST	Swiss Tar : 7.0 / SN : 0.6 Swiss Tar : 6.0 / SN : 0.6 Product test Triple filter

- Two product tests are in the field.
  The report has been established.
- A trial has been run in order to replace the additive (Meerschaum).
  Taste evaluation is negative. This means that the additive Meerschaum is absolutely necessary.
  A report has been written.
- A meeting will take place, on the 24th of January 1980 with the Baumgartner firm, to discuss the triple filter manufacturing.

266	HARVARD	Swiss Tar : 7.0 / SN : 0.6 ATLANTIC concept Product test

- The product test results are available. A first estimation shows no difference between prototype 95 and the current MAB. The product test results will be presented by the end of January.
- A new development will start as soon as an acceptable prototype COLORADO will be available.

269	GRAND CANYON	Swiss Tar : 1.0 / SN : 0.1 CO : 4 / NO : 0.1 Puff count : 7.0 ATLANTIC concept Launching phase

- The final report relating to the first production will be established as soon as possible, as well as a report on the expanded tobacco (ET-3) situation.

0001437750

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

- In order to increase puff count (at the present time : 6.2), a trial has been carried out with the cigarette paper BDP 30 EP 110 "Maryland type".
  A report has been established and taste evaluation is under way.

312 FILTER LENGTH INCREASE

Brands : MIF / ALF / CHF / NPF / MFM
Filter : 20 mm
Cigarette rod : 59.4 mm
Diameter : 7.975 mm

A L F

- The first production started on the 22nd of January.
  Quantity : 15 Million
- Analyses are under way.

M I F / C H F

A format modification has been accepted by Marketing, we have changed specifications for the next production.

N P F

A trial is under way in parallel with the foil mentholating project.

M F M

Following a discussion with the responsible people of the production department and in accordance with the Committee B, there will be no change for this brand.

320 MANHATTAN

Swiss Tar : 9.0 / SN : 0.8
ATLANTIC concept

No work has been effected this month.

271 COLORADO

Swiss Tar : 3.0 / SN : 0.3
ATLANTIC concept

- Prototypes 36 to 41 do not correspond to the smoke yield objectives.
- A trial report has been written.
- Blend modifications have been effected and new prototypes will be prepared as soon as tobacco will be available.

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Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

257 LOS ANGELES MAA / MAK / MPH

M A A / M A K Swiss Tar : 12.0 / SN : 0.9

- The final report will be established.
- A trial with a ZEP tipping from Tann is under way.
- A new trial will be produced during February in order to standardize MAA blends.

M P H Swiss Tar : 13.0 / SN : 1.0

The first production of diluted MPH will take place at the end of January 1980.

MIAMI Swiss Tar : 16.0
Development phase

A meeting with Marketing will take place on the 31st of January in order to define objectives.

I R A N

348 PERSEPOLIS DPM : 18 - 19 mg/cig.
PC and AC development

The development of this project is finished.

P. Nagel

P. Nagel

29/01/1980/PHN/cap

00014375 2

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

PROJECT TITLE : CIGARETTE DEVELOPMENT
PROJECT LEADER : J.-H. DU BOIS
PERIOD COVERED : December 22nd 1979 - January 21st 1980
WRITTEN BY : J.-H. DU BOIS

S W E D E N

Project name	Name	Situation or objectives

141 BUBBLE — Market test

It has been decided to launch 5 Million cigarettes identical to MLY 021-Norway in an 85 mm format by mid-November 1979, for the extended consumer test with a questionnaire insert in the packet.

354 INGEMAR / GAMMA — Product having a tar content of 6 to 8 mg/cig., an SN as high as possible, CO content below 10 mg/cig. and a puff count of 8 puffs/cig. A 25 mm filter and 29 mm tipping are requested.

No work was done due to other priorities. Work will now be initiated by using ET-1 (FC-US) and, if necessary, a modified leaf formula.

355 GOSTA

I) A product delivering 1 mg tar or less, SN and CO values should be commensurately low, but are not specified. Same format as BOND LTN. Cork tipping. American blended type of taste.

II) An American blend GAMMA type product delivering 2 and 4 mg tar. Moderate size.

I) Prototypes have been re-engineered in order to decrease the RTD and prototypes should be available during week 4.

II) The RTD being the weak point, re-engineered prototypes will be available during week 4.

M L K — Product test

A product test between MLF, MLK (with a 3 % tobacco weight increase) and PRINCE has been prepared and will be dispatched at the beginning of week 4.

00014375 3

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

F I N L A N D

141 BUBBLE — DPM, SN, CO deliveries less than 11 mg/cig., 0.8 mg/cig., 10 mg/cig.

A product test has been produced in ATO and prototype T 91 b has been found acceptable for testing and should now be in the field.

338 B E O — DPM, SN, CO deliveries less than 11 mg/cig., 0.8 mg/cig., 10 mg/cig.

A product test is presently in the field.

303 DILUTED MARLBORO

New prototypes will be produced as soon as the new cigarette papers from Tervakosky are available (increase of ash whiteness with calcium carbonate, etc.).

353 MARKKU / GAMMA — Adaptation of the GAMMA cigarettes to Finland

No development work has been asked for up to now.

N O R W A Y

M L K — Product test

A product test between MLF, MLK (with a 3 % tobacco weight increase) and PRINCE has been prepared and will be dispatched at the beginning of week 4.

00014375 4

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

U N I T E D K I N G D O M

208 TENNIS — UK tar less than 16 mg/cig. / Format : 7.975/20/85

Prototypes made with MLF blend, FTR and Hunter, PC and Burley treatments should be available by the end of week 5 in order to compare the standard solution against a solution according to the Hunter list.

290 HILTON — UK tar less than 10 mg/cig.

Prototypes should be available by the end of week 4.

356 SPRINT — A 15 to 16 mg/cig. tar cigarette in a 7.95/25/100 mm format

A prototype will be produced at the same time as project RUGBY.

CHESTERFIELD — Product test

The product test results should come out very very shortly.

H O L L A N D

263 HILTON

Development work was made as described under HILTON BELGIUM.

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Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

B E L G I U M

276 HILTON

A serie of 5 prototypes was produced and prototypes 4 and 7 are judged better in taste than the actual production.

307 QUEEN DPM less than 12 mg/cig. / Format : 7.25/25/97.4 mm

Mr. W. Tschudin has been charged to study the machine situation in order to produce a cigarette with a diameter of 7.45 m (for the moment being : 7.25 mm)
Prototype W 6 seems to be the more interesting candidate, W 10 less so.

283 PERCH DPM of 5 mg/cig. / SN of 0.5 mg/cig. / Format : 7.95/25/84.4

The TAMBAY III product test results are now available, but no decision has yet been taken for a product test.

F R A N C E

342 TAMBAY

New 6 mg prototypes should be available at the beginning of week 5.
TAMBAY IV product test has been asked for.

J.-H. Du Bois

24/01/1980/JHD/cap

00014375

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

PROJECT TITLE	:	FLAVOUR DEVELOPMENT
PROJECT LEADER	:	A. BADSTUBER
PERIOD COVERED	:	January 3rd - January 25th 1980
WRITTEN BY	:	A. BADSTUBER

SUPPLIERS

- The three tobaccos extracts received from Bertrand Frères will be tested as soon as possible.
- IFF has contacted us to prepare a visit for Mr. M. Trewitt, a specialist on tobacco flavours.

ASSISTANCE TO OTHER PROJECT LEADERS

- We worked on the projects COLORADO / GAMMA / GOSTA / HILTON UK / NEWCASTLE / PERSEPOLIS / PETER PAN / TENNIS UK.
- 60 kg of tobacco were treated for two different projects.

FOIL MENTHOLATING

- Trials to standardize blends and solutions of menthol are under way :
  - Blends : CRF and CRM
    BSD and BSC
  - Solutions : To standardize the proportion between synthetic and natural menthol.
- A production of BSC has been made with the foil mentholating method.
- We have received bobbins from Belgium and Holland to run trials for the introduction of the foil mentholating system in these countries.
- Packers are equiped with embossing heads heaters and we can produce all mentholating brands (MFM, MEM, BSC, CRM) in hinge lid packs.

00014375?

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

- 160 bobbins were mentholated for PMG Munich.

- A program has been established to analyse losses at the beginning of packing of MLN-DB in Munich. The production is under control and cigarettes will be sent to FTR for analyses.
  Analyses will be made in February.

A. Badstuber

28/01/1980/ANB/cap

000143758

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

PME PRODUCT DEVELOPMENT, January 1980

PROJECT TITLE	:	NEW PRODUCT DEVELOPMENT LABORATORY
PROJECT LEADER	:	S. BEGUIN
PERIOD COVERED	:	December 20th 1979 - January 20th 1980
WRITTEN BY	:	S. BEGUIN

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1) CIGARETTES PRODUCED IN THE MANUFACTURING DEPARTMENT

a) Total quantity : 372,000
b) Number of prototypes : 29

2) TOBACCO BLEND TRIALS IN THE PRIMARY DEPARTMENT

a) 2 x 1,000 kg (unflavoured)

3) FILTER RODS PRODUCED IN THE FILTER MAKING DEPARTMENT

a) Total quantity : 128,000
b) Number of prototypes : 8

4) PACKS (20 cig.) PRODUCED IN THE PACKING DEPARTMENT

a) Total quantity : -------
b) Number of projects : -------

5) PRODUCT TEST(S) PREPARED : -------

S. Béguin

SEB / cap

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Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

PROJECT TITLE : Tobacco Analysis

PERIOS COVERED : January 3rd - January 31st

WRITTEN BY : L. Joseph

APPROVED BY : F. Lopes

TOBACCO LOT ANALYSIS

1. Special trials

- FC Yugoslavian tobacco

  Sixteen samples of the mentioned tobacco were received this month. The grades, reaping and ways of irrigation of these samples are different. The results were sent to Mr. Faber. (1)

- Partially contaminated lot (No. 9084) (2)

  We have received a monitor and two samples more or less contaminated. Cigarettes were made for conventional TLA analyses and for special research investigations.

2. Routine tobacco lot analyses

- Introduction of inputs on EDP

  Part of the analytical results of 13 lots was entered in the Analytical Data List.

- Lots under evaluation

  Thirty.

- Lots available but not yet analysed

  Eleven lots of local tobacco.

ASSISTANCE TO OTHER PROJECTS

1. RCB Monique

   Trial NINO No. 2

   The results of the smoke analyses are available. The CO, NO and puff number analyses were not done because of bad combustibility.

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Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

The main difference between this and the usual RCB trials is the lower DPM delivery (12,9 mg/g instead of 18.9 mg/g).

Trial NINO No. 3 (unwashed stems)

The main differences in comparison to the usual RCB are: higher N-NO3 level; consequently, more NO delivery, lower TA level and lower SN delivery.

Trial NINO/RCB No.5 (washed stems and denitrated extract without biomass) and the analyses of lot O111 (48% dust) are under evaluation.

Concerning trial NINO/RCB No.4 (washed stems and denitrated extract with biomass) the quality and quantity of the samples are not good enough to make TLA analyses.

MISCELLANEOUS

A study was made on MLF components (Burley, FC, Orient, Reconstituted Tobacco and Esther). Single components were treated with pre and after-cutting MLF solutions according to standard recipes. TLA analyses were carried out on each component as well as on the blend obtained by mixing the components in the proportions of the MLF blend. The results were compared with those obtained with standard MLF blend.

As a first conclusion we can say that the results obtained on the mixed blend correspond to the values calculated with the individual results of each component (weighted proportions in the blend). Unfortunately, due to the non-homogeneity of the FC sample, we cannot compare the mixed blend values with those of the standard MLF blend. (See enclosed table).

L. Joseph

References:

1) Letter from L. Joseph to Mr. H. Faber, dd. February 5th, 1980

2) Letter from Mr. Lecoultre to Miss L. Joseph, dd. December 17th, 1980

00001437761

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

FILLER

	BUR	FC	OR	TR	ES	Mel. SC	Mel. Calc.	Part MLF
Alkaloids, total %	1.56	1.24	1.06	0.67	0.63	1.19	1.14	1.83
Red. sugars %	1.7	15.6	14.0	3.9	6.5	8.9	8.5	7.5
Nitrate, N. %	0.42	0.01	0.02	0.27	0.72	0.31	0.23	0.29
Ammonia N. %	0.44	0.20	0.11	0.90	0.29	0.36	0.40	0.34
pH tobacco %	6.1	5.5	5.5	6.5	5.4	5.9	5.9	5.9
Moist.equil.%	12.2	13.7	13.9	13.2	12.0	12.1	13.1	13.1
Fill.power cv. ml/10g	40.2	24.0	24.0	32.0	48.9	34.5		34.1
Fill.power corrig. 12% ml/10g	40.9	29.6	30.3	36.0	48.9	34.8	35.4	37.6

FILTER

	BUR	FC	OR	TR	ES	Mel. SC	Mel. Calc.	Partie MLF
SN (mg/g)	1.39	0.91	0.77	0.58	0.34	1.01	0.91	1.28
HCN (mg/g)	117	68	46	60	42	82	75	79
Aldeh.(mg/g)	0.74	1.00	0.90	0.58	0.88	0.91	0.82	0.85

SMOKE

D P M (mg/g)	23.5	29.8	29.1	18.0	8.8	25.4	24.0	26.9
SN (mg/g)	1.59	1.40	1.23	0.68	0.32	1.20	1.20	1.84
Puff count/g	11.6	15.0	15.2	10.1	8.0	12.2	12.6	12.1
HCN (µg/g)	345	289	280	392	209	414	318	366
Aldeh.(mg/g)	1.83	2.05	1.92	1.59	1.88	2.18	1.87	2.07
CO (mg/g)	25.9	19.9	20.0	26.6	22.3	27.8	23.1	25.9
NO (mg/g)	0.73	0.07	0.11	0.44	0.51	0.45	0.36	0.41

2000143762

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

PROJECT TITLE : Cigarette and Smoke Analysis

Period Covered : December 21, 1979 - January 30, 1980
Report Written by : F. Senehi
Report Approved by : J.B. Boder

Cigarette Information Report

In order to improve the presentation of the cigarette information report, the following modifications will be made in the next edition (No 12-1979/1-1980) :

1. In the section "Highlights", the description of the brand modifications during the given period will be more detailed.

2. The same comments, but listed according to the alphabetical order of the brand names, will be eliminated.

3. All the product reports will be grouped in the green pages, just after the blue section.

4. The persons who only receive the pocket C.I.R. will, from now on, receive the whole blue and green section, i.e. :

   - Highlights
   - Characteristics of the brands commented on
   - Brands ranked according to DPM or tar delivery
   - All the product reports (green pages)

Smoking Machine : FILTRONA 300

Since December 15, 1979, our oldest smoking machine has been completely out of work. For this reason, we now have a one week delay in the smoke analyses. A new drive unit, model 300, was ordered.

ANALYTICAL SMOKING

- Competitive Brands

The tar and smoke nicotine values have been determined on 12 brands from the Cameroons. The results have been distributed.

00001437763

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

- Data from the Official Swiss Laboratory of Dr. Romann
(See table in appendix)

A table has been issued, which shows the tar, smoke nicotine, carbon monoxide and nitric oxide values of all PM brands analysed by Dr. Romann's laboratory, compared with the results obtained by QC PME (ref. 1).

Dr. Romann finds, in the average,

11.3 % lower tar results
7.5 % lower SN results
3.1 % lower CO results
11.7 % lower NO results

The tar deviation is probably due to the following facts :

1. that Dr. Romann's laboratory is not well conditionned

2. that the smoking machine FILTRONA 302 (8 ports), used by Dr. Romann, gives lower tar results than the smoking machine FILTRONA 300. This fact had already been observed in the results of the collective test organised by the Swiss Association of Cigarette Manufacturers on two selected cigarette brands :

Manufacturer	Smoking Machine	Condensate	
		Cig. A	Cig. B
B.A.T.	FILTRONA 302	11.5	15.5
Dr. Romann	FILTRONA 302	11.3	15.5
Burrus	FILTRONA 300	12.5	16.9
F.T.R.	FILTRONA 300	12.4	17.0

- TPM Audit

During the Quality Control PME Meeting of March 5th-7th, 1979, a procedure for the TPM programme was proposed, discussed and agreed between the three smoke laboratories located in Munich, Eindhoven and Neuchâtel.

After several months of experience and practice, a TPM audit took place in Neuchâtel, Munich and Eindhoven with the participation of Miss Regel, Mr. van Duuren and the undersigned as well as their closest collaborators.

2000143764

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

PROJECT TITLE : Cigarette and Smoke Analysis

Conclusions :

1) The procedure for the TPM programme has been re-defined (modifications on "sampling", "number of analyses", "alarm limit", etc.).

2) There are still some questions regarding the regression curve to solve.

3) Some participants have doubts about the time saved with this inspection system.

-"Submarine" Project

The first monthly computer-edited "Submarine" situation report was distributed on January 16, 1980 (ref. 3).

This report gives the risk, in percent, that the analytical numbers of the sample of a given brand exceed the tolerance limit above the printed number.

Risk tables are specific to each country, by taking into account the sampling procedure, the sample size, and the rules governing the tolerance limits.

- Product Reports

The following product reports have been worked out :

Brand		Manufacturer	Country of sale
Craven "A" Menthol Légère	84/F	Carreras-Rothmans	France
Peter Stuyvesant Menthol Light	80/F	Turmac	France
Dunhill Superior Mild Int.	94/F	Brinkmann	West Germany
Winston King Size	84/F	Reynolds	West Germany

QC FINISHED PRODUCTS

F. Senehi

References:

1. Letter dd. 01-18-1980 from F. Senehi to Mr. J.B. Boder
2. Letter dd. 01-28-1980 from F. Senehi
3. Letter dd. 01-18-1980 from F. Senehi

Appendix : Table

0000143765

Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

COMPARATIVE RESULTS BETWEEN THE OFFICIAL SWISS LABORATORY OF DR. ROMANN AND QC PME

BRANDS	TAR			SN			CO		NO	
	ROMANN	QC PME	PRINTED VALUES	ROMANN	QC PME	PRINTED VALUES	ROMANN	QC PME	ROMANN	QC PME
ARLETTE	13.2	14.8	16	0.71	0.87	1.0	16.5	17.4	0.32	0.34
BASTOS	13.8	16.4	17	0.73	0.94	1.1	15.8	15.8	0.31	0.43
BRUNETTE CARREE / PLATE	18.3/18.0	19.5	23	1.14/1.06	1.18	1.3	14.1/14.1	14.7	0.26/0.25	0.31
BRUNETTE DOUBLE	14.0	15.1	15	0.96	1.05	1.0	16.8	16.4	0.28	0.30
BRUNETTE EXTRA MOU / BOX	5.5/ 5.6	6.6	7	0.40/0.49	0.49	0.6	10.0/10.0	10.2	0.19/0.18	0.20
BRUNETTE FILTRE	14.0	15.7	16	0.92	1.02	1.1	16.0	16.5	0.29	0.30
CHAMPION	13.8	15.7	15	1.29	1.35	1.4	14.1	13.8	0.13	0.14
DIANA KING SIZE	13.4	14.7	19	0.85	0.92	1.4	17.3	16.4	0.17	0.23
FLINT BOX	6.7	7.0	7	0.49	0.55	0.6	9.5	10.4	0.14	0.15
FLINT KING SIZE	6.5	7.4	7	0.49	0.52	0.6	8.9	10.6	0.14	0.16
FLINT ULTRA LEGERE	0.7	1.7	2	0.12	0.19	0.2	3.0	3.5	0.09	0.09
MURATTI AMBASSADOR BOX	12.7	13.7	14	0.92	0.91	0.9	14.9	15.6	0.20	0.23
MURATTI 2000	5.4	6.6	7	0.49	0.53	0.6	7.9	9.1	0.11	0.14
MURATTI 2000 EXTRA LONGS BOX	6.3	7.8	9	0.57	0.61	0.8	8.6	10.1	0.12	0.15
MURATTI AMBASSADOR EXTRA MILD K.S.	4.1	5.5	5	0.37	0.44	0.4	7.8	10.1	0.13	0.13
MURATTI AMBASSADOR KING SIZE	12.7	14.0	14	0.90	0.92	0.9	16.1	16.4	0.21	0.24
MERCEDES KING SIZE	15.7	17.3	16	0.96	1.01	1.1	18.7	18.6	0.19	0.22
MILLA	16.6	17.8	17	0.88	0.93	0.9	16.3	14.5	0.08	0.12
MARLBORO BOX	14.6	16.7	16	1.13	1.16	1.2	14.9	16.6	0.24	0.26
MARLBORO 100'S RED BOX	15.7	17.8	17	1.26	1.34	1.2	16.5	16.8	0.28	0.26
MARLBORO KING SIZE	13.1	16.0	16	1.01	1.17	1.2	14.2	16.5	0.21	0.26
MARLBORO GOLD	7.8	9.2	9	0.67	0.74	0.8	10.5	11.7	0.18	0.22
MULTIFILTER 100'S	13.3	15.5	16	1.00	1.07	1.1	17.1	16.7	0.23	0.25
MULTIFILTER KING SIZE	12.7	13.5	14	0.94	0.91	0.9	16.7	15.7	0.23	0.23
MS KING SIZE	14.7	16.0	18	1.05	1.15	1.2	16.7	18.0	0.34	0.36
NORTH POLE	13.6	15.3	14	0.82	0.93	0.9	13.7	14.3	0.19	0.25
PHILIP MORRIS INTERNATIONAL	15.1	17.5	17	1.12	1.13	1.1	19.0	18.0	0.22	0.26
PHILIP MORRIS KING SIZE NF	21.5	23.1	23	1.52	1.61	1.5	13.7	13.2	0.19	0.22
GENERAL AVERAGE	11.98	13.50	13.79	0.847	0.916	0.964	13.76	14.20	0.203	0.230

0001437766

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PROJECT TITLE	:	Additives and Analytical Services
Period Covered	:	November 27, 1979 - January 30, 1980
Report Written by	:	A. Widmer
Report Approved by	:	F. Lopes

TRIALS WITH NEW SUPPLIERS OF TOBACCO ADDITIVES

- Honey (USEGO, Olten, ex YUCATAN / yellow sheet 5572, 0.5 kg) :

  The sample is within specifications.

TRIALS WITH NEW SUPPLIERS OF GLUES

- Tipping glue (ISAAR RACOLL CHEMIE, Wels (Austria) "Ipatherm WS 1067" / yellow sheet 5501, 18 kg) :

  This glue has been developped especially for porous paper. In the test cigarette (MLF-CH), it has been considered as good as "Lesso 2088" and "Ipatherm WS 1065", although it seems to be slightly less adhesive than the standard.

  Panel B : Accepted.
  Panel A : Not acceptable because of a significant difference between test cigarette and standard.

- Tipping glue (HENKEL, "A 7637-21") - Ref. 1 :

  Panel A did not accept the test cigarettes (MLY-DB) because of a significant difference to the standard.

- Tipping glue (THUERMER, "max 2/44") - Ref. 1 :

  Panel A accepted the test cigarettes (BSL-IT).

- Tipping glue (ex DELFT, "401-2980") - Ref. 2 :

  Panel A did not accept the cigarettes (MLK-DB) because of a lack of cleanness.

- Glue for packing machine (JOSE PUJADAS, Barcelona, "6612 F" / yellow sheet 5499, 10 kg) :

  A trial on the machine showed worse results than with the standard glue. Further trials are not foreseen.

- Glue for packing machine (JOSE PUJADAS, Barcelona, "6649 E" / yellow sheet 5500, 10 kg) :

  A trial on the machine showed worse results than with the standard glue. Further trials are not foreseen.

- Glue for packing machine (CHEMIE MOUDON SA, Sarnen, "Moudocol V-764" / yellow sheet 5472, 1000 kg) :

  In the laboratory, a viscosity of 3400 cps instead of 1800-2000 cps has been found. The trial on the machine raised serious problems, even with mixtures with 50 % standard glue. According to the supplier, the low quality of the glue is due to an error of fabrication.

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QC ASSISTANCE FOR OTHER COUNTRIES

- Mentholated cigarettes (Nigeria) - Ref. 3 :

Four brands have been analysed :

		TARGET MENTHOL	GREEN SPOT	VARSITY	SWEET MENTHOL WHITE TIPPING
Menthol	(mg/cig)	1.98	5.19	3.22	2.86
Menthol	(mg/cig.smoke)	0.37	0.93	0.57	0.71
Menthol in the smoke	(%)	18.7	17.9	17.7	24.8
Menthol	(µg/puff)	38	109	61	73
Puff count / cig.		9.5	8.5	9.4	9.8

Each value corresponds to the average of four determinations. In order to confirm the results (especially for different productions and times of storage), we asked to receive further samples of these brands in spring.

SERVICES FOR OTHER GROUPS

- Analyses for foil mentholating :

Menthol in tobacco, filter and inner foil (72)

- Analyses for reaction flavour :

Chlorids (10)

- Analyses for Mr. D. Schulthess :

Total nitrogen in tobacco and extracts (60)

A. Widmer

References :

1. Letter from A. Widmer to Mr. B.W. Lutzig dd. December 6, 1979
2. Letter from A. Widmer to Mr. W. Tessendorf, dd. February 4, 1980
3. Letter from A. Widmer to Mr. D. Polack, dd. February 4, 1980

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Source: https://www.industrydocuments.ucsf.edu/docs/xknl0000

PROJECT TITLE : Material Development

PERIOD COVERED : January 3 - January 30, 1980

WRITTEN BY : P. Balliger

APPROVED BY : F. Lopes

Filtration material

3,4/46000 I	balle No. 037 790	Rhodia
3,4/46000 I	balle No. 037 983	Rhodia
3,4/38000 I SK	balle No. 148 444	Rhodia
3,4/36000 I SK	balle No. 148 446	Rhodia

These tows produced with different raw materials should have a performance similar to Eastman's 3,4/46000 I standard quality presently used on pan-European diluted Marlboro.

MLFPQ filters manufactured at FTR before Rhodia's technicien ran without problems on the KDF2 machine.

Diluted MLF exp were made with these filters for smoke yield determination and taste evaluation.

Tipping paper

Korkipa PM F Z3/60 EPZ Enterlein

In order to have several suppliers for electrostatically perforated cork tipping paper, Enterlein was requested to submit sample bobbins to PMG-Munich and FTR.

According to lab results, the main characteristics of this material correspond to Benkert's Z3/60 standard quality except the back side of the tipping which is rougher than expected.

On the finished product, this particularity has greatly increased the dilution rate and consequently, negatively influenced smoke deliveries.

In spite of this, it was decided to give another opportunity to Enterlein to produce a suitable quality of tipping paper.

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Cardboard

Kopparwhite strong 220 g/m2 (for Hinge Lid)
Kopparwhite 220 g/m2 (for display carton)

In order to find a second cardboard supplier for the Hinge Lid packs and display carton production, Papyrus-Kopparfors was requested to submit material able to be compared to Iggesund standard qualities.

Analytical investigation carried out on the above-mentioned qualities gave the following results:

Bending forces and tearing resistance are acceptable, but whiteness is insufficient and the appearance of the board backside is slightly beige and not uniform.

Based on these comments, neither of the two qualities can be taken into consideration for the time being.

Technical sheets

Filtration material

No. 220004	3,4/46000 I	balle No. 037790	Rhodia
No. 220005	3,4/46000 I	balle No. 037983	Rhodia
No. 220006	3,4/38000 I SK	balle No. 148444	Rhodia
No. 220007	3,4/36000 I SK	balle No. 148446	Rhodia

QC PME

P. Balliger

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PROJECT TITLE : S P E C I F I C A T I O N S

Period Covered : 22.12.1979 - 24.1.1980
Report Written By : Catherine Flury
Report Approved By: J.B. Boder

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1. Specifications Fabriques de tabac réunies SA

- The diluted filters for the Brunette/Ambassador/Marlboro group are now manufactured with paper Sch. & H. FU-POV 40 L (replacing 24 K). The switch for Ambassador is provisional and has to be confirmed.

- The Ambassador Extra Mild MAE filter is produced with a higher porous plug wrap (40 K), to increase dilution and reduce numbers.

- A three months' trial period with diameters reduced from 7,90 to 7,86 for filters and from 7,975 to 7,95 mm for cigarettes is carried out in FTR, on Marlboros.

- The filter length of the only PME recess filter, Arlette, has been increased from 18 to 20 mm. The total cigarette length of ALF remains at 79,4 mm.

- The Swiss product MPK Multifilter King Size is diluted (new blend Ambassador 42, porous combi filter, new cigarette paper).

- Special sale cigarettes were produced:
  BWK 001 Broadway King Size, for sale in U.S.A.
  MAA 066 Ambassador Filter, for sale in Columbia

2. Specifications Intertaba S.p.A.

- Project filter making specs were produced for a porous combined Ambassador and a porous combined Ambassador Extra Mild (MAC) filter.

3. Specifications PM Holland
4. " PM Germany

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5. Specifications PM Great Britain

- The cigarette making and packing specifications were updated (minor modifications).

6. Specifications Weltab SA

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7. Specifications Licensees

- Project filter making specs were established for project Maraschino.

8. PME Material Specifications

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9. PME Standard Recipes

Enclosure

Table on number of production centers and specifications

Catherine Flury

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PME Specs Office
Catherine Flury
10.1.1980

P M E S P E C I F I C A T I O N S

PRODUCTION SITES

- PME affiliates:
  5 affiliates in 6 countries, with — 10 production centers
- PME licensees:
  In 11 countries — 20 production centers
- FTR licensees (L & M): — 8 production centers

38 production centers

NUMBER OF SPECIFICATIONS

(without L & M brands)

	PMG Germ.	FTR Switz.	PMH Holland	WELTAB Belgium	PM UK Gr.Br.	Licen-sees	T O T A L
Tobacco Process.	11	32	10	11	1	20	85
Filter Making							96
Cigarette Making	22	60	27	21	1	27	158
Packing	64	128	57	45	7	40	341
Solution Recipes							72
							752

NUMBER OF SUPPLY MATERIAL QUALITIES (= MATERIAL SPECIFICATIONS)

(without L & M brands and sections Additives/Filters/Cigarettes only)

- Additives/ingredients for tobacco and filters	69
- Filter tows (cellulose acetates)	16
- Filter papers (plug wraps)	23
- Cigarette papers	25
- Tipping papers	59
- Cigarette printing inks	27
	219

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PROJECT TITLE : Physical Testing Methods

Period Covered : December 1, 1979 - January 31, 1980
Report Written by : T. Piko
Report Approved by : J.B. Boder

Diameter of Porous Filter Rods

The trials with the Filtrona "Automatic Circumference Gauge" in the QC laboratory are over. The results are satisfactory.

Comparative measurements with other diameter measuring instruments, such as Solex and Laser-Mike, are under way. After this test, the "Automatic Circumference Gauge" will be definitely installed in the QC lab. for routine checks.

Cigarette Compressibility

The comparative measurements between the modified digital firmness tester and the instrument used by QC PME have been carried out. The results are identical. The definitive electronic control device was ordered from RCB Electronic.

Automation of TPM Determination

We received a new quotation from RCB Electronic as regards the automation of TPM determination.

After discussion with Messrs. Boder and Etter, it has been decided that a study should be carried out, in collaboration with Mr. Carpi (RCB Electronic), on a general concept of the QC PME laboratory in view of a possible extension of the micro-processor.

Pressure Drop and Dilution Instrument ex PME

The second series of PDI ex PME has been built. We dispatched :

2 instruments to PM Munich
2 instruments to PM Berlin
1 instrument to Factory Duvana, Sarajevo
1 instrument to Intertaba, Bologna

Automatic Scale for Individual Cigarette Weight

We received four mechanical units for the automatic scale.

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PROJECT TITLE : Physical Testing Methods

Physical Test

The results for December 1979 as well as comments by Dr. Kreuter will be distributed at the beginning of February.

Miscellaneous

A complete instrument to determine the cigarette moisture content, TESTRON model TM-80, was dispatched to Philip Morris Overseas Inc., London.

QC - METHODS

T. Piko

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PROJECT TITLE : PATENTS

PERIOD COVERED : January 1980

WRITTEN BY : J.C. Mandiratta

NEW PATENT APPLICATION

New results have been obtained by our Microbiology Research Group for the denitration of tobacco. It has been decided to file a new priority application in Luxemburg. The decision of filing this application in other countries will be made within one year. The Patent Office in Richmond has been informed regarding this application on 16.1.1980 and a copy of our Luxemburg application will be sent to Richmond as soon as it is finalized.

VISITS

On 15th January, Dr. Schulthess and myself visited Dr. Hach to discuss above mentioned application among other matters and mainly the research report received from the French Patent Office regarding NINO patent applications in France.

NEW PATENTS ISSUED

France	24 16 654	Process of Improving Tobacco Aerobic Fermentation - NINO

The decision of the West German Patent Office has been received and "Patentschrift" 22 10 255 will be issued soon.

Title of the invention:	Method for Processing Low Wood Content Non-Tobacco Plant Material into Tobacco Substitute

RENEWAL FEES

The renewal fees have been paid for the undermentioned patents and patent applications:

West Germany	PS 22 10 255)	Method for Processing Low
France	21 29 458)	Wood Content Non-Tobacco
Great Britain	13 31 914)	Plant Material into Tobacco
Switzerland	560 022)	Substitute

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Bulgaria		26 801	Tobacco Substitute
West Germany	PS	23 07 884	" "
France		21 74 637	" "
Great Britain		14 12 878	" "
Switzerland		574 717	" "
Great Britain		14 13 177	Process for the Manufacture of Regenerated Tobacco
West Germany	OS	28 11 690	Process of Improving Tobacco (Anaerobic Fermentation - NINO)
Luxemburg		79 039)	Process of Improving Tobacco (Aerobic Fermentation - NINO)
Belgium		874 052)	
France		79 02 972)	

J.C. Mandiratta

30.1.1980 MJA/scm

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FEB 29 1980
T. S. OSDENE

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